

Example Scenario No. 2

Modeled Inhalation from Showering (with Planning Tables 1, 2, 3, 4, and 7)

Scenario Description: Individuals may be exposed to chemicals of potential concern in air by inhalation of chemicals through showering. The inhalation pathway is modeled using an EPA-accepted inhalation model. For this example scenario, a model accepted by EPA regions, such as the Foster and Chrostowski Shower Model, is used to evaluate *future adult resident inhalation exposure to groundwater*. See Example Scenario 4 for illustrations of how to present modeled data.

Planning Table Issues Associated with this Scenario:

1. How will use of an inhalation model affect Planning Table 1?

Planning Table 1 can accommodate this easily. Planning Table 1 can be completed to include an exposure medium (e.g., Water Vapors at Showerhead) and include the inhalation exposure route for all applicable scenarios. For this scenario example, Planning Table 1 would include a row that would describe this inhalation exposure pathway.

2. What data will be included in Planning Table 2 -- modeled air concentrations or measured groundwater concentrations?

In this example, Planning Table 2 will show measured groundwater concentrations. The data will be screened against tap water screening values.

3. What data will be included in Planning Table 3?

In this example, Planning Table 3 will show measured groundwater statistics.

4. How will the inhalation model parameters be shown on Planning Table 4?

For this example, the upper left hand corner Summary Box and the exposure route, receptor population, receptor age, and exposure point fields should be completed. However, exposure parameters and intake equations do not need to be entered into the table if there are space limitations. In the exposure route column, enter "Inhalation" with a footnote. Include the footnote explanation beneath the table that describes the model to be used and the section of the risk assessment text where information regarding modeled intake development can be found. Supporting information that summarizes the modeled intake methodology and parameters used to calculate modeled intake values should be included in the Baseline Risk Assessment Report as an attachment. Non-standard tables may also be used to display modeled information. Refer to the Risk Assessment text for details on the modeled intake methodology, the parameters used to calculate modeled intake values, and the modeled air concentrations predicted by the model.

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5. How are the modeled results displayed on Planning Table 7?

For this example, EPC values are calculated using measured groundwater data. They can be found on Planning Table 3. Intake/Exposure concentration values are values that are generated using the inhalation model. These values need to be included on this table. The risks and hazards will be calculated using the “Intake / Exposure concentration values” based on modeling and appropriate toxicity information.